

EXHIBIT B

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION**

RICHARD ROSE, et al.,

Plaintiffs,

v.

BRAD RAFFENSPERGER, in his
official capacity as Secretary of State
of the State of Georgia,

Defendant.

Civil Action No. 1:20-cv-02921-SDG

REBUTTAL REPORT OF BERNARD L. FRAGA, PH.D.
JUNE 4, 2021

I. Scope of Work

I was asked by attorneys for the plaintiffs in this action to evaluate the analyses and conclusions made in the report produced by the defendant's expert, Dr. Michael Barber.

II. Summary of Findings

Based on my evaluations of Dr. Barber's report, along with my existing knowledge, expertise, and experience, I conclude the following:

- a. Dr. Barber ignores decades of political science research indicating that voter race, and/or the racial attitudes and racial policy preferences held by voters, heavily informs a voter's partisan preferences.
- b. It is not scientifically valid to claim that one can distinguish "partisan polarization" from "racial polarization" via the survey data and multiple regression approach employed by Dr. Barber, and Dr. Barber himself documents substantial evidence of racially polarized voting above and beyond what he characterizes as partisan polarization.
- c. When correctly specified, analyses of racial differences in rolloff in Public Service Commission elections do not provide clear evidence that Black voters roll off at higher rates than white voters.
- d. It is not scientifically valid to claim that rolloff by Black voters accounts for consistent losses by Black-preferred candidates in Public Service Commission elections.

III. Numerous scientific studies demonstrate that race and racial attitudes inform partisan preferences.

As noted in Dr. Popick's report, in *Thornburg v. Gingles* the Supreme Court defined "racially polarized voting" as a circumstance "where there is a consistent relationship between the race of the voter and the way in which a voter votes,"¹ "where black voters and white voters vote differently,"² or where election outcomes "would have been different depending on whether it had been held

¹ *Thornburg v. Gingles*, 478 U.S. 30, 53 (1986)

² *Id.*

among only the white voters or only the black voters.”³ Dr. Popick uses ecological inference to demonstrate that racially polarized voting exists in 2012-2021 Georgia Public Service Commission (PSC) elections. In his report, Dr. Barber does not contest these findings, instead indicating that “[t]hese results illustrate that the Georgia Public Service Commission elections are better described as polarized by partisanship rather than by race” as “[i]n all cases, Dr. Popick finds that White voters’ candidate of choice is the Republican candidate. In all cases but one he finds that Black voters candidate of choice is the Democratic candidate.”⁴

Dr. Barber’s report juxtaposes “partisan polarization” and “racial polarization,” seemingly ignoring the *Gingles* precedent and attempting to redefine racially polarized voting as something other than any of the three definitions the Court provided. Given that American elections are dominated by contestation between two major parties, “black voters and white voters vot[ing] differently” in general elections virtually guarantees partisan polarization between Blacks and whites.⁵ Indeed, leading theories in political science, Dr. Barber’s field of expertise, indicate that an individual’s persistent partisan identification as a Democrat or Republican (i.e., “partisanship”⁶) is shaped in large part by their other, more fixed social identities, especially racial/ethnic identity.⁷ Partisan polarization may therefore be understood as a consequence of, rather than a competing explanation for, patterns of racially polarized voting.

³ *Id.* at 58.

⁴ Expert Report of Dr. Michael Barber, p. 4.

⁵ Hajnal, Zoltan. (2020) *Dangerously Divided: How Race and Class Shape Winning and Losing in American Politics*. New York: Cambridge University Press.

⁶ “Party identification” or “partisanship” has been called “the most important concept in modern electoral behavior research,” and may be defined as an “early-socialized, enduring, affective, psychological identification with a specific political party.” (Dalton, Russel J. (2016) “Party Identification and Its Implications.” *Oxford Research Encyclopedia of Politics*. Published online 09 May 2016.)

⁷ Green, Donald, Bradley Palmquist, and Eric Schickler. (2002) *Partisan Hearts and Minds*. New Haven, CT: Yale University Press; Hajnal, Zoltan. (2020) *Dangerously Divided: How Race and Class Shape Winning and Losing in American Politics*. New York: Cambridge University Press.

Dr. Barber also appears to ignore decades of political science research indicating the significant, and often dominant, role of racial attitudes and racial policy preferences in producing individuals' partisan preferences.⁸ This is especially true in the South, where race, party, and vote choice have been continually entwined and knotted from the early 1800s to the present.⁹ Black and white voters in the South continue to hold highly divergent views on a variety of racial issues, in part because of the aforementioned interconnected nature of racial and partisan contestation, and because of the historical legacy of white slaveholding.¹⁰ Therefore, it is difficult, if not impossible, to disentangle racial considerations and partisan considerations in a manner that would validate Dr. Barber's contrast between partisan and racially polarized voting. Dr. Barber's analyses that attempt to distinguish between partisan and racial polarization are thus out of step with contemporary social scientific approaches to studying race and party in American elections, and would not satisfy standards of rigor necessary for publication in peer-reviewed political science journals today.

IV. Dr. Barber's survey data and multiple regression analyses do not provide evidence of a lack of racial polarization in Georgia PSC elections.

Dr. Barber's questionable juxtaposition of partisan polarization and racial polarization notwithstanding, Dr. Barber's methodology for attempting to

⁸ Carmines, Edward and James Stimson. (1989) *Issue Evolution: Race and the Transformation of American Politics*. Princeton, NJ: Princeton University Press; Petrocik, John R. (1996) "Issue Ownership in Presidential Elections, with a 1980 Case Study." *American Journal of Political Science*. 40 (3): 825-850; Mangum, Maruice. (2013) "The Racial Underpinnings of Party Identification and Political Ideology." *Social Science Quarterly* 94 (5): 1222-1244.

⁹ Holt, Michael F. (2004) *The Fate of their Country: Politicians, Slavery Extension, and the Coming of the Civil War*. New York: Hill and Wang; Foner, Eric. (2014) *Reconstruction: America's Unfinished Revolution, 1863-1877*. New York: Harper; Key, V.O. (1949) *Southern Politics in State and Nation*. New York: Alfred A. Knopf Press. Hood, M.V. III, Quentin Kidd, and Irwin L. Morris. (2012) *The Rational Southerner: Black Mobilization, Republican Growth, and the Partisan Transformation of the American South*. New York: Oxford University Press.

¹⁰ Acharya, Avidit, Matthew Blackwell, and Maya Sen. (2018) *Deep Roots: How Slavery Still Shapes Southern Politics*. Princeton, NJ: Princeton University Press.

disentangle race and party also produces results that are either inconclusive *or support* the plaintiffs' claim of racially polarized voting. This extends to both his descriptive analyses aggregating survey data from the Cooperative Election Study (CES), found in Section 3 of his report, and the multiple regression model analyses found in Section 4 of his report.

In the section of his report documenting trends in survey data, Dr. Barber leads his analysis by indicating that “[Dr. Popick’s] results illustrate that the Georgia Public Service Commission elections are better described as polarized by partisanship rather than by race” and “[t]he results from the Public Service Commission races in Georgia align with broader patterns of the partisan preferences of voters in Georgia.”¹¹ Dr. Barber bases these claims on the fact that Black voters usually prefer Democratic candidates and white voters always prefer Republican candidates. However, as mentioned previously, competition between the Democratic and Republican parties is a fundamental feature of American elections at nearly every level. Dr. Barber himself uses “two-party Democratic vote share” as a measure of electoral competition in his report, and favorably cites the assertion that “two-party competition [is] an important indicator of a healthy political system.”¹² Therefore, to the extent that Dr. Barber’s analyses show partisan polarization by race, they also necessarily show racially polarized voting given the nature of the American electoral system.

In addition, Dr. Barber’s results provide significant additional evidence of racially polarized voting that corroborates the plaintiffs’ claims. First, using CES survey data, Dr. Barber demonstrates a high degree of racially polarized voting in Georgia elections for U.S. House, U.S. Senate, President, and Governor. Dr. Barber finds that “[o]n average, Black voters have preferred Democratic candidates

¹¹ Expert Report of Dr. Michael Barber, p. 4-5.

¹² Expert Report of Dr. Michael Barber, p. 13.

at or near 90% while White voters have supported Democratic candidates around 30% of the time.”¹³ This is already a high degree of racially polarized voting, but combining Dr. Barber’s rough estimates¹⁴ with Dr. Popick’s analysis of PSC elections indicates that racially polarized voting is even higher in PSC elections, as white support for Black-preferred candidates was below 20% in most elections from 2012-2021 and was never higher than 25% during the period.¹⁵ Based on Dr. Popick and Dr. Barber’s data, PSC elections display a higher degree of racially polarized voting than U.S. House, U.S. Senate, Presidential, or Gubernatorial elections in Georgia.

Second, Dr. Barber indicates that in Georgia, Black party identification with the Democratic Party, which is distinct from the vote choice made by an individual and is not specific to any single election, “ranges between 78% and 92%” in surveys taken from 2008-2020, while Black identification with the Republican Party “is consistently around 5%”.¹⁶ White Georgians “affiliated with the Democratic Party at roughly 25% and were affiliated with the Republican Party between 52% and 64%” during the same time period.¹⁷ Again this demonstrates a high degree of racial polarization. However, Dr. Barber’s analysis of CES data also shows that White Georgians vote as a bloc to defeat Black-preferred candidates to a greater extent (76-88%)¹⁸ than would be predicted based on their party identification alone (52-64% of white Georgians identify as Republican). When it comes to specific elections, therefore, white voter behavior is even more polarized

¹³ Expert Report of Dr. Michael Barber, p. 5.

¹⁴ These rough estimates do not appear to coincide with the data presented in Figure 1 of Dr. Barber’s report. It is not clear why this discrepancy exists, but it appears to understate the degree of racially polarized voting in Georgia elections.

¹⁵ Expert Report of Dr. Stephen Popick, p. 11.

¹⁶ Expert Report of Dr. Michael Barber, p. 6.

¹⁷ Expert Report of Dr. Michael Barber, p. 6-7.

¹⁸ Expert Report of Dr. Stephen Popick, p. 12.

in opposition to Black-preferred candidates than what partisan attachments alone would suggest.

Third, Dr. Barber provides a single example where a Democratic candidate was not Black voters' candidate of choice, and he ignores significant racial polarization in this Georgia PSC election *even in the absence of a Republican-Democrat matchup*. Citing Dr. Popick's report, Dr. Barber notes that in a 2016 Republican vs. Libertarian matchup for the PSC District 2 seat, Black voters preferred the Libertarian candidate by a margin of 79.18% to 20.82% for the Republican.¹⁹ In the same contest, White voters preferred the Republican candidate by a margin of 85.36% to 14.64%. Dr. Barber concludes that "This unusual situation in which there was not a candidate from both major parties on the ballot illustrates that partisanship has a substantial impact on the level of support from voters in these races."²⁰ However, this statement ignores the reality of obvious racially polarized voting *even in the absence of a Republican-Democrat matchup*. Furthermore, Dr. Barber appears to ignore another instance of a Republican-Libertarian matchup, where the Libertarian candidate was both Black-preferred and Black himself (2014 District 1). In this election, where the Black-preferred candidate lost, white voters preferred the (white) Republican candidate by a margin of 87.51% to 12.49% for the (Black) Libertarian,²¹ the lowest level of white support for a Black-preferred candidate in the time period examined by Dr. Popick and Dr. Barber.

In Section 4 of his report, Dr. Barber appears to agree that partisan affiliation and race are "entangled" when it comes to determining vote choice, as he indicates he will use a multiple regression analysis to "disentangle the correlation between voters' race and vote choice versus their partisan affiliation and vote choice by

¹⁹ *Id.*, p. 5, citing results from Expert Report of Dr. Stephen Popick, p. 11,12.

²⁰ *Id.*

²¹ Expert Report of Dr. Stephen Popick, p. 11,12.

showing the impact of each factor while holding constant the other.”²² Based on the results of his regression analyses, Dr. Barber asserts “The relatively smaller values of the points associated with race and the relatively larger values of the points associated with partisanship show that when considered separately, partisanship has a much larger impact than race in predicting the party of one’s vote choice.”²³

Dr. Barber’s decision to use multiple regression to “disentangle” race and partisan affiliation as determinants of vote choice is flawed for a variety of reasons. First, as noted above, racial identity, racial attitudes, and racial policy preferences are key factors that *produce* and *sustain* an individual’s partisan affiliation, such that partisan polarization by race may be understood as, at least in part, a product of enduring historical and contemporary racial divides. Dr. Barber’s own analyses in Section 3 suggest as such: racial polarization in party identification exists in Georgia, and few Black Republicans have advanced to general elections in the state. Any thorough examination of the origins of party affiliations, particularly in the South, would identify a primary role for race.²⁴

The link between race and party also belies a flaw in Dr. Barber’s quantitative approach and the conclusions he draws from it. Dr. Barber’s multiple regression includes, for each individual, information about their race, party identification, age, and gender as predictors of vote choice. The output of the multiple regression analysis is a series of coefficients and standard errors for each variable (or category within each variable, in the case of race and party identification). As racial identification and partisan identification are highly correlated, but not perfectly collinear, Dr. Barber’s statistical program is able to generate the point estimates

²² Expert Report of Dr. Michael Barber, p. 8.

²³ *Id.*

²⁴ See fn. 7-9 of this report.

and 95% confidence intervals shown in Figure 3. However, since racial identification is one of the factors producing an individual's party affiliation, some of the effect of race is captured in the party affiliation variable. In other words, voter race impacts vote choice in part *via* party identification. In statistical terms, this phenomenon has been called "mediation."²⁵ Mediation occurs when a variable of interest impacts the outcome of interest at least in part through impacting an intervening or "mediating" variable that goes on to impact the outcome of interest. Mediation is a primary concern when seeking to adjudicate between competing explanations of how one thing causes another (causality), and can lead to severely biased estimates of the effect of a variable of interest when controlling for a mediating variable that occurs after (and in part because of) the variable of interest.^{26,27} In Dr. Barber's multivariate regression, party identification "mediates" the relationship between race and vote choice and makes it appear that race has a smaller effect than it actually does. Thus, Dr. Barber presents a relatively small effect of "race" compared to "party," when, in reality, his multiple regression results are inconclusive as they are unable to fully disentangle the two identities from each other.

The multiple regression approach used by Dr. Barber is fundamentally incapable of demonstrating a lack of racial polarization based on the extent of partisan polarization given the close relationship between the two variables. Difficulties in interpretation due to collinearity are a long-known flaw with

²⁵ MacKinnon, David P, Jennifer L. Krull, and Chondra M. Lockwood. (2000). "Equivalence of the Mediation, Confounding, and Suppression Effect." *Prevention Science* 1 (4): 173-181.

²⁶ Acharya, Avidit, Matthew Blackwell, and Maya Sen. (2016) "Explaining Causal Findings Without Bias: Detecting and Assessing Direct Effects." *American Political Science Review*. 110 (3): 512-529.

²⁷ As an example, consider a researcher attempting to understand the impact of childhood socioeconomic status (independent variable of interest) on a college student's GPA (outcome of interest). These factors are likely highly correlated. However, if one added SAT scores as a control variable in a multivariate regression, the researcher may find that the effect of childhood socioeconomic status is severely attenuated or even disappears. This is because SAT scores are in part a product of childhood socioeconomic status, so adding this mediating variable (SAT scores) leads to biased estimates of the effect of socioeconomic status on GPA.

multivariate analyses attempting to “isolate” the effect of race from other election or non-election related factors, including in voting rights cases.²⁸ However, Dr. Barber’s multivariate regression analysis indicates that, *even after incorporating partisanship into the model*, we still see that voter race is a significant predictor of candidate preferences.²⁹ When comparing elections for federal vs. state offices, Dr. Barber’s analysis indicates that the only state office he examines (Governor) shows the strongest pattern of racially polarized voting *even after incorporating partisanship into the model*. This coincides with Dr. Barber’s finding that white Georgians oppose Black-preferred candidates to a greater degree than would be predicted based on party identification alone,³⁰ and when combined with Dr. Popick’s analyses indicating greater racially polarized voting in PSC elections versus the state and federal offices examined by Dr. Barber, suggests that Dr. Barber’s analyses would find voter race to be an even stronger predictor of vote choice in PSC elections, relative to party identification and relative to other offices in Georgia.

V. Corrections to Dr. Barber’s analyses demonstrate rolloff rates in recent Public Service Commission elections are not consistently associated with voter race and cannot explain losses by Black preferred candidates.

In the final substantive section of his report, Dr. Barber appears to agree with Dr. Popick’s determination that Black-preferred candidates have been distinctly unsuccessful in Georgia PSC elections,³¹ stating “recent elections for Public

²⁸ Grofman, Bernard. (1991). “Multivariate Methods and the Analysis of Racially Polarized Voting: Pitfalls in the Use of Social Science by the Courts.” *Social Science Quarterly*. 72 (4): 826-833.

²⁹ Expert Report of Dr. Michael Barber, p. 9, Fig. 3.

³⁰ See p. 7 of this report.

³¹ In his Expert Report, Dr. Popick states “And voting in elections for Public Service Commissioner have been highly polarized along racial lines, with Black voters voting cohesively in support of their preferred candidates and white voters voting as a bloc to defeat the Black-preferred candidates. Indeed, this pattern of racial polarization is

Service Commission have been competitive and decided by narrow margins. Nevertheless, Republican candidates have won all five of the most recent elections (and many more before that).” Dr. Barber speculates as to what produces this result, especially given the success of other Black-preferred candidates in the state. He focuses a majority of this final analysis on an exploration of ballot “rolloff,” defined as “when a person votes in one race but does not complete their entire ballot, leaving some races blank.”³² Dr. Barber investigates the relationship between rates of ballot rolloff in a county the November 2020 election and the proportion of the citizen voting-age population that is Black in the county. He finds that ballot rolloff is higher in more heavily Black counties, which is “consistent with academic research on the differences in ballot roll-off between White and Black voters.”³³

Dr. Barber’s analysis of rolloff only has clear implications for this case if the county-level correlation he finds can be generalized to consistent individual-level differences in rolloff rates between white and Black Georgians in PSC elections. However, he makes two key errors in attempting to identify generalizable individual-level patterns.

First, Dr. Barber’s analysis of rolloff uses units of analysis (counties) that vary widely in size and in turnout rates, distorting individual-level relationships. Based on the CVAP data disclosed by Dr. Barber, the largest county (Fulton) has over 735,000 citizens of voting age, while the smallest county (Taliaferro) has only 1,330 citizens of voting age. In Dr. Barber’s analysis of rolloff, each of these counties is given equal weight in order to infer differences between white and

among the clearest I have seen in my professional career. In *100 percent* of the elections for Public Service Commissioner held in the last ten years, Black and non-Hispanic white voters strongly supported different candidates, and the Black-preferred candidate lost in each election.” p.20.

³² Expert Report of Dr. Michael Barber, p. 16.

³³ Expert Report of Dr. Michael Barber, p. 19.

Black rolloff rates. This biases his estimates toward more heavily weighting individuals in low-population counties in inferring individual-level behavior. Dr. Barber also relies on CVAP, rather than the actual number of voters. Since Black turnout is lower than white turnout in Georgia, this has the effect of conflating white and Black voter behavior in heavily-Black counties. Correcting these errors requires an analysis that weights counties by the number of voters in the 2020 election and uses the number of voters by race instead of the CVAP by race.


For this report, I evaluated a replication of Dr. Barber's analyses conducted by Dr. Popick. Dr. Popick was able to precisely reproduce Dr. Barber's analyses in Table 1,³⁴ and he then corrected the flaws in Dr. Barber's analysis by using turnout data to weight the analysis and county-level turnout rates by race as the explanatory variable. Dr. Popick's analysis revealed no statistically significant relationship between rates of ballot rolloff in the November 2020 general election and the proportion of the county's voters that were Black, with coefficients that are far smaller in magnitude. Furthermore, Dr. Popick also analyzed rolloff in the 2021 runoff election for PSC District 4 using the same model, and he found a *negative* relationship between the percent of voters who were Black in the county and the rate of rolloff. While not statistically significant ($p = 0.181$), this suggests that there is unlikely to be a clear pattern in rolloff by race in Georgia PSC elections.

Dr. Barber implies that Black rolloff was a contributing factor to Black-preferred candidates' losses in 2020 PSC elections. However, corrected analyses of county-level data do not corroborate this story, and because there is no clear evidence regarding the pattern of rolloff by race, it is not possible to ascertain whether rolloff by Black voters or white voters helped or hindered Black-preferred PSC candidates in 2020 or other elections.

³⁴ Expert Report of Dr. Michael Barber, p. 20.

Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 4, 2021



Bernard L. Fraga